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AYMAN BEDAIR

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EXAMINER

HARPER, KEVIN C

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/475,269	<b>Applicant(s)</b> BEDAIR ET AL.	
	<b>Examiner</b> Kevin C. Harper	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 20-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 20-32 and 34 is/are rejected.
- 7) ☒ Claim(s) 15 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Arguments***

Examiner notes that claim 34 should have been rejected on the similar grounds as claim 22.

Applicant's arguments filed May 13, 2008 have been fully considered but they are not persuasive.

1. Applicant argued that the combination of references does not disclose adapting the bandwidth of a network to maintain a QoS. However, in the instant application a QoS is delay (specification, page 1, line 22), where delay is affected by changes in bandwidth (specification, page 10, lines 6-9). Optimization is restricting network resources to avoid negative effects (spec, page 13, line 30 to page 14, line 4). Similarly, Constantin discloses maintaining a QoS by measuring a parameter (delay - col. 6, line 63 through col. 7, line 11) and optimizing network bandwidth by preventing an overload within the network (col. 7, lines 7-15, forming a new connection only when sufficient bandwidth resources are available).

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Daniel provides motivation to provide a PBX within a network.

3. Applicant argued that the combination of reference fails to establish a *prima facie* case of obviousness. However, the combination provides a teaching and motivation for a PBX within a network, where the network achieves a desired delay based on QoS parameters by adjusting the

bandwidth of the network, and where the adjustment to maintain a desired delay is further based on reducing the size of the voice packets.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin et al. (US 6,198,725) in view of Daniel et al. (US 5,726,985) and Widegren et al. (US 6,374,112).

1. Regarding claims 1 and 20, Constantin discloses a method of adapting a network to maintain a Quality of Service level in the network (col. 3, lines 7-13). The method comprises the steps of identifying and measuring a parameter after the packet has been transmitted across a network (fig. 4, steps 108 and 112; col. 1, lines 32-39; fig. 1), and enabling optimization of the network bandwidth when the measured parameter differs from a predetermined value (fig. 4, step 114; col. 6, line 63 through col. 7, line 11). Further regarding claim 20, Constantin discloses an apparatus (fig. 1) comprising a parameter identifying mechanism, a parameter measuring device and an optimization enabling device (items 22; col. 7, lines 30-45; fig. 4).

2. However, Constantin does not disclose adapting a PBX network. Daniel discloses a PBX used in a packet network (fig. 1). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a PBX in the invention of Constantin in order to provide packet connectivity among telephone users (Daniel, col. 10, lines 40-47 and 49-54; col. 1, lines 49-52).

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3. Further, Constantin in view of Daniel does not disclose providing an optimization that reduces the size of voice packets transported in the network. Widegren discloses adapting the frame size of packets to meet a target QoS (i.e. delay; col. 15, lines 2-9). Therefore, it is known in the art that increasing or decreasing the size of a packet changes the path delay of the packet based on packet processing. The rationale for the combination is if a technique that has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique (i.e. changing the size of a packet to desirably affect the transmission delay of the packet) would be obvious (see *KSR Int'l Co. v. Teleflex Inc.* (2007)).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin et al. (US 6,198,725) in view of Daniel et al. (US 5,726,985) and Thorson (US 4,440,986).

4. Constantin in view of Daniel discloses a method of (and apparatus for) adapting a PBX network as noted in the rejection of claims 1 and 20 above. However, Constantin in view of Daniel does not disclose first and second PBX cabinets. Thorson discloses a cabinet for a PBX (col. 4, lines 53-60). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a cabinet for a PBX in the invention of Constantin in view of Daniel in order to provide a physical housing for the components of a PBX as is known in the art.

5. Still further, Constantin does not specifically disclose a register for storing a measured parameter. Daniel discloses storing a parameter in a register (col. 22, lines 13-20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to store a measured parameter in a register in the invention of Constantin in order to use the parameter in a subsequent calculation as is known in the art.

Claims 3, 6-8, 21 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin in view of Daniel, as applied to claim 1 or 20 above, in further view of Yamato et al. (US 5,694,390).

6. Regarding claims 3 and 21, Constantin in view of Daniel does not disclose measuring a sequence number associate with a packet. Yamato discloses measuring a sequence number of successive packets (col. 25, lines 62-66). The sequence is associated with stored data packets (col. 8, line 63 through col. 9, line 4). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to measure a sequence number in the invention of Constantin in view of Daniel in order to determine a utilization level in a network (Yamato, col. 26, lines 4-8).

7. Regarding claims 6 and 24, Constantin does not specifically disclose a register for storing a measured parameter. Daniel discloses storing a parameter in a register (col. 22, lines 13-20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to store a measured parameter in a register in the invention of Constantin in order to use the parameter in a subsequent calculation as is known in the art.

8. Regarding claims 7-8 and 25-26, the limitations of these claims have been addressed in the rejection of claim 3 or 21 above.

Claims 4-5 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin in view of Daniel, as applied to claim 1 or 20 above, in further view of Campbell et al. (US 2003/0140159).

Claims 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin in view of Daniel and Thorson, as applied to claim 2 above, in further view of Campbell et al. (US 2003/0140159).

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9. Regarding claims 4-5, 22-23 and 34, Constantin in view of Daniel (and Thorson) does not disclose measuring differences in packet arrival times for round trip packets. Campbell discloses measuring difference in arrival times for round trip packets (para. 136 and 139; para. 130 and para. 132, last four lines). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to measure packet arrival times for round trip packets in the invention of Constantin in view of Daniel (and Thorson) in order to detect a utilization level within a network (Campbell, para. 136).

Claims 9-13 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin in view of Daniel and Yamato, as applied to claim 8 or 26 above, in further view of Geagan, III et al. (US 6,263,371).

10. Regarding claims 9-10 and 27-28, Constantin in view of Daniel and Yamato does not disclose incrementing a packet counter as claimed. Geagan discloses incrementing a counter by one to keep track of the sequence of incoming packets and incrementing a counter by more than one if a packet is lost (abstract; fig. 3 and fig. 6, steps 78 and 84-90). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to keep track of a sequence of packets using a counter in the invention of Constantin in view of Daniel and Yamato in order to properly convey the real-time information within received packets (Geagan, col. 2, lines 38-42).

11. Regarding claims 11-13 and 29-31, in Constantin the optimization is static by limiting the number of channels on a network and the optimization is adaptive (fig. 8, "Reject Bandwidth Request; fig. 9A, "Update the Total Bandwidth Allocation and Available Bandwidth", "Take Measures to Enforce the Service Contract Agreements" and "Release a Block of 'Borrowed' Bandwidth to the ATM interface").

Claims 14 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantin in view of Daniel, Yamato and Geagan, as applied to claim 14 or 29 above, in further view of Thorson (US 4,440,986).

12. Regarding claims 14 and 32, the combination of references does not disclose a PBX cabinet having cards. Thorson discloses a cabinet for a PBX having cards (col. 4, lines 53-60). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a cabinet for a PBX in the invention of Constantin in view of Daniel in order to provide a physical housing for the components of a PBX as is known in the art.

#### ***Allowable Subject Matter***

Claims 15 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost, can be reached at 571-272-7872. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is [kevin.harper@uspto.gov](mailto:kevin.harper@uspto.gov).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see [portal.uspto.gov](http://portal.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin C. Harper/

Primary Examiner, Art Unit 2616

September 30, 2008